

## **MULTIMODAL INVESTMENT CHOICE ANALYSIS (MICA)**

### **BRIEFING PAPER**

Prepared for the  
November 2002 TRANSPORTATION COMMISSION MEETING

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### **PURPOSE:**

To brief the Commission on a work plan for addressing Section 401 of ESHB 2304, the Transportation Efficiencies bill. This includes developing a common methodology for addressing cost benefit analysis components between modes and further refinements of identified gaps in the Multimodal Investment Choice Analysis (MICA) Model.

### **ACTION/OUTCOME:**

The Commission will not be required to take action. In August 2002, the Commission directed WSDOT staff to develop a work plan that would address:

- 1) Developing a consistent methodology for addressing cost benefit analysis between modes; and
- 2) Identifying the effort required to complete the gap analysis identified within MICA.

The expected outcome is a clarification of the cost to implement a work plan to address this section of ESHB 2304.

### **BACKGROUND:**

On July 1, 2002, the Transportation Efficiencies bill, ESHB 2304, took effect. The bill instructs the department to “develop analytical tools that use a common methodology to measure benefit and costs for all modes.” (RCW 47.05.010). This requirement is to be phased in over time. If Referendum 51 had been enacted, a \$65,000 appropriation would have been provided to populate the MICA model with data from WSDOT’s existing program, for a test of the software.

### **DISCUSSION:**

Referendum 51 was not approved by the voters.

### **Timeline:**

ESHB 2304 requires this work element to be phased in. If Referendum 51 had received a positive vote, or new revenue is made available most WSDOT improvement projects have been programmed or identified for several years. The earliest use of programmatic trade-off choices from MICA or in general would likely be in preparation for future revenue proposals.

Referendum 51's negative vote, the shortage of current revenues, coupled with long standing expectations for delivering identified projects limits the implementation of programmatic trade-off choices for several years.

Under either scenario, the application of this effort should not be expected to yield results for another five or six years at the earliest.

Work Element	Positive Referendum 51 Vote	Negative Referendum 51 Vote
<p><u>1. Cost benefit analysis between modes:</u></p> <p>In the August 2000 briefing, the MICA study revealed several differences on how the model and programs have developed their respective cost benefit analysis methods.</p> <p>Differences found include:</p> <ul style="list-style-type: none"> <li>• Assignment of wage rates (related to cost of delay);</li> <li>• Discount rates between highways and ferries;</li> <li>• Project life cycles;</li> <li>• Etc.</li> </ul>	<p>Upon Commission direction, staff would have recommended providing funding for:</p> <ul style="list-style-type: none"> <li>• Staffing that could have lead this effort both technically and in terms of building consensus among the different modal programs.</li> <li>• A retainer with TRAC to provide expertise and troubleshooting as required.</li> </ul> <p>This work effort would have been for one biennium. The results of this effort could have been incorporated into the program management structure for inclusion in future project selections.</p> <p>Estimated cost: \$350,000 to \$400,000 for one biennium.</p>	<p>Upon Commission direction, staff recommends:</p> <ul style="list-style-type: none"> <li>• A substantially reduced level to lead the effort both technically and in terms of building consensus among the different modal programs.</li> <li>• This level of effort would result in a longer phase-in period of two or three biennia before the trade-off choices could be used for programmatic decision making.</li> </ul>

Work Element	Positive Referendum 51 Vote	Negative Referendum 51 Vote
<p><u>2. Gap Analysis Identified in the MICA report.</u></p> <p>Within the MICA model there are gaps in information and level of detail for each modal program. These gaps limit the effectiveness of the model and ultimately programmatic trade-offs.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Safety components within the Preservation program</li> <li>• Better inclusion of safety components within the Safety program (i.e. pedestrian accident locations, signal / channelization, etc.)</li> <li>• Need for local non-motorized use data to determine the benefits of non-motorized projects instead of using national defaults.</li> </ul>	<p>Populate the MICA model and test it with real data.</p> <p>The objectives are to:</p> <ol style="list-style-type: none"> <li>1) See how the model performs using real data; and</li> <li>2) Put in placeholder values in identified gaps to determine what incremental effect they may have on overall programming choices.</li> </ol> <p>For illustration purposes, ferry emissions are assumed to be negligible. The model could assign a range of emission values and determine what impact it actually has on cost benefit analysis when the whole ferry program is compared against other modes.</p> <ul style="list-style-type: none"> <li>• By testing the model, it may be more efficient to use an estimated value, rather than spend resources on a protracted search for the exact value. This is particularly significant if a subcomponent's measurement will not substantively alter the model's overall analysis output.</li> <li>• True gaps will then be pursued for further refinement.</li> </ul> <p>An estimated cost is \$65,000 to populate and test the MICA model.</p>	<p>There is no revenue available to support populating the model with data.</p>

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